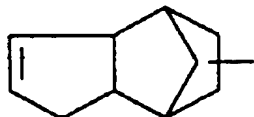


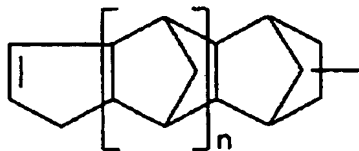
Hot-melt resins and their use**Claims**

1. Hot-melt resins comprising
 - A) at least one solid unsaturated polyester and
 - B) at least one oligomeric and/or polymeric crosslinking agent which is copolymerizable with the said polyester and which in respect of the oligomeric and/or polymeric main chain comprises at least one terminal and/or pendant propenyl, isopropenyl and/or (meth)acrylic ester group.
2. The hot-melt resins as claimed in claim 1, characterized in that the crosslinking agents (B) have at least two terminal and/or pendant propenyl, isopropenyl and/or (meth)acrylic ester groups.
3. The hot-melt resins as claimed in claim 1 or 2, characterized in that the crosslinking agents (B) have propenyl and/or isopropenyl groups.
4. The hot-melt resins as claimed in one of claims 1 to 3, characterized in that the oligomer and polymer main chains are formed by saturated and/or unsaturated polyesters, polyester amides, polyester imides and/or polyurethanes.
5. The hot-melt resins as claimed in one of claims 1 to 4, characterized in that at least one of the unsaturated polyesters (A) and/or at least one of the crosslinking agents (B) has at least one structural unit of the general formula I



(I)

and/or at least one structural unit of the general formula II



(II) in which the index n is an integer from 1 to 10.

6. The hot-melt resins as claimed in one of claims 1 to 5, characterized in that they comprise additives, especially curing accelerators, photoinitiators, especially of Norrish type 1 or 2, pigments and/or fillers.

7. The hot-melt resins as claimed in claim 6, characterized in that the photoinitiators are bonded chemically to at least one of the unsaturated polyesters (A) and/or at least one of the crosslinking agents (B).

8. The use of the hot-melt resins as claimed in one of claims 1 to 7 as casting and impregnating compositions or coating materials.

9. The use of the hot-melt resins as claimed in claim 8, characterized in that they are used as casting and impregnating compositions for components and for impregnating absorbent materials and also as coating materials for primed and unprimed substrates.

10. The use of the hot-melt resins as claimed in claim 9, characterized in that the components comprise electronic components, the absorbent materials comprise sheetlike insulating materials, especially glass silk and mica tapes, and the primed and unprimed substrates comprise vehicle body parts, industrial components or packaging, especially of metal and/or plastic.

11. A process for the melt impregnation or melt coating of components, absorbent materials or primed and unprimed substrates by

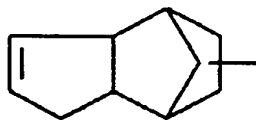
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- (i) melt-applying a hot-melt resin,
- (ii) applying the resultant resin melt onto and into the components, absorbent materials or primed or unprimed substrates,
- (iii) curing the applied resin melt by heat and/or actinic radiation,

characterized in that the hot-melt resin comprises

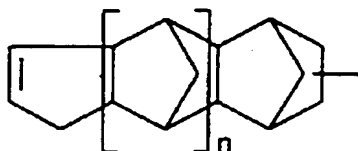
- A) at least one solid unsaturated polyester and
 - B) at least one oligomeric and/or polymeric crosslinking agent which is copolymerizable with the said polyester and which in respect of the oligomeric and/or polymeric main chain comprises at least one terminal and/or pendant propenyl, isopropenyl and/or (meth)acrylic ester group.
12. The process as claimed in claim 12, characterized in that the crosslinking agents (B) have at least two terminal and/or pendant propenyl, isopropenyl and/or (meth)acrylic ester groups.
13. The process as claimed in claim 11 or 12, characterized in that the crosslinking agents (B) have propenyl and/or isopropenyl groups.
14. The process as claimed in one of claims 11 to 13, characterized in that the oligomer and polymer main chains are formed by linear, branched and/or dendrimeric, saturated and/or unsaturated polyesters, polyester amides, polyester imides and/or polyurethanes.
15. The process as claimed in one of claims 11 to 14, characterized in that at least one of the unsaturated polyesters (A) and/or at least one of the crosslinking agents (B) has at least one structural unit of the general formula I

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(I)

and/or at least one structural unit of the general formula II



(II) in which the index n is an integer from 1 to 10.

16. The process as claimed in one of claims 11 to 15, characterized in that they comprise additives, especially curing accelerators, photoinitiators, especially of Norrish type 1 or 2, pigments and/or fillers.

17. The process as claimed in claim 16, characterized in that the photoinitiators are bonded chemically to at least one of the unsaturated polyesters (A) and/or at least one of the crosslinking agents (B).

18. The process as claimed in one of claims 11 to 17, characterized in that the application (ii) takes place by

- placing at least one shaped part comprising the hot-melt resin and adapted in its shape to the shape of the component, absorbent material or primed and unprimed substrate to be coated onto the component, absorbent material or primed and unprimed substrate, and melting the shaped part,

or by

- dipping, hot-dipping, dip-rolling, flooding, casting, vacuum impregnation, vacuum pressure impregnation or trickling.

19. The process as claimed in one of claims 11 to 18, characterized in that the applied hot-melt resin is partially gelled (process step iv) before process step (iii).

20. The process as claimed in one of claims 11 to 19, characterized in that the applied hot-melt resin in process step (iii) is cured by thermal curing by means of electricity, induction, hot fluids, especially hot gases, microwave radiation and/or IR radiation, especially near infrared (NIR) radiation.

21. The process as claimed in one of claims 11 to 20, characterized in that the applied hot-melt resin in process step (iii) is cured electromagnetic radiation, especially UV radiation, and/or corpuscular radiation, especially electron beams.

22. Components, especially electrical components, sheetlike insulating materials based on absorbent materials, and primed and unprimed substrates comprising at least one hot-melt resin, cured thermally and/or with actinic radiation, as claimed in one of claims 1 to 10.

23. The components, especially the electronic components, the sheetlike insulating materials based on absorbent materials and the primed and unprimed substrates as claimed in claim 22, characterized in that the hot-melt resins have been applied and cured with the aid of the process as claimed in one of claims 11 to 21.